4.4.5 Fitting the extension kits to the machine frame

4.4.5.1 Fitting the extension kit on the PCB output side

When the placement machine is delivered, the extension kit on the PCB output side and the PCB output conveyor are dismantled. The procedure for attaching the extension kit to the PCB output side is as follows:

- Fitting the output conveyor — see Section 4.4.6, page 186
- Fitting the extension kit on the PCB output side — see Section 4.4.7, page 187
- Installing the axis unit on the HF and HF/3 — see Section 4.4.8, page 194
- Fitting the main fault indicator — see Section 4.4.13, page 214
- Integrating the placement machine into the line — see Section 4.4.14, page 216
- Making final adjustments to the placement machine — see Section 4.4.15, page 219

4.4.5.2 Fitting the extension kit on the PCB input side

If the extension kit on the PCB input side was also removed for ease of transportation, you will have to carry out the following steps before integrating the placement machine into the line (see Section 4.4.14, page 216):

- Fitting the input conveyor — see Section 4.4.9, page 199
- Fitting the extension kit on the PCB input side — see Section 4.4.10, page 201
- Installing the computer unit on HF and HF/3 — see Section 4.4.11, page 207
- Installing the axis unit on the HF and HF/3 — see Section 4.4.8, page 194
- Fitting the main fault indicator — see Section 4.4.13, page 214
- Integrating the placement machine into the line — see Section 4.4.14, page 216
- Making final adjustments to the placement machine — see Section 4.4.15, page 219

4.4.6 Fitting the output conveyor

4.4.6.1 Tools

– Allen keys, DIN 911, set
– Phillips screwdriver, size 1

4.4.6.2 Assembly

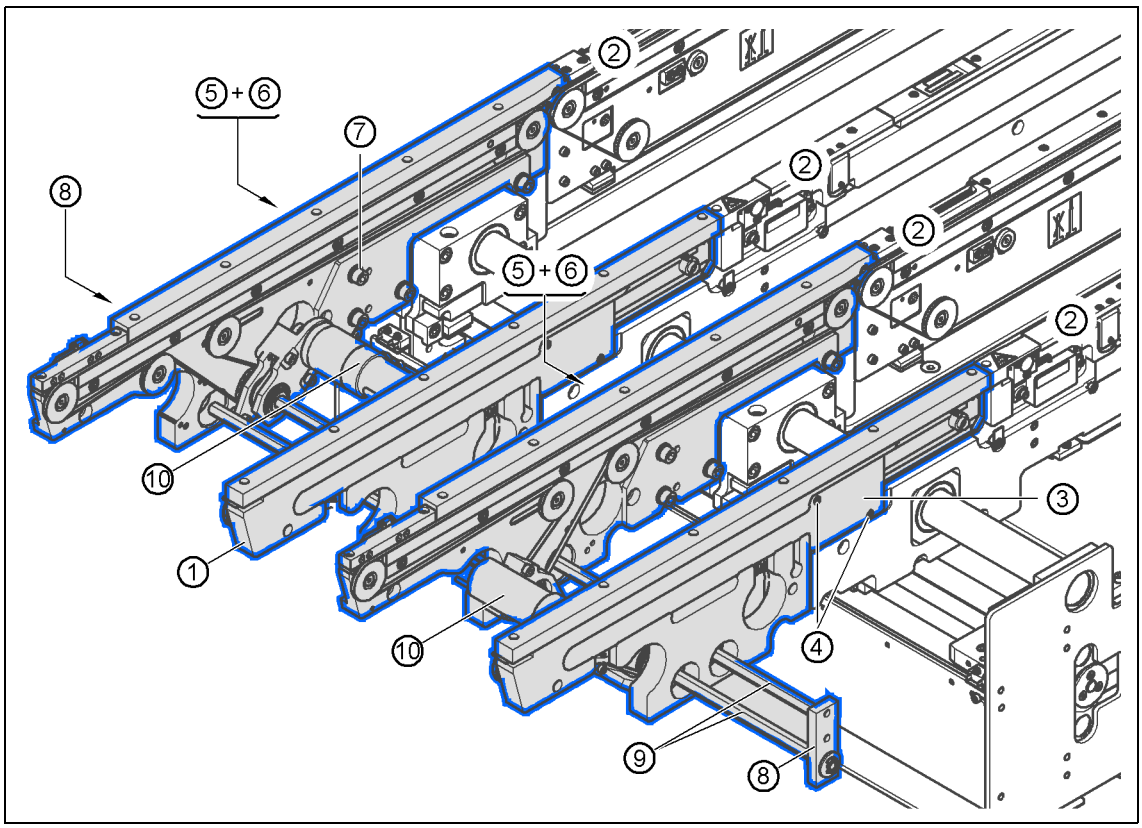

Fig. 4.4 - 7 Output conveyor - dual conveyor

(1) Panel, output conveyor
(2) Panel, processing conveyor 2
(3) Cable cover 20 x 200
(4) Countersunk screw, ISO 7046, M3x6, 2x per cable cover
(5) Cable cover 20 x 310
(6) Fillister head screw DIN 912, M3x5, 1x per cable cover
(7) Fillister head screw DIN 912, M6x16, and washer, 4x per panel
(8) Guide for hexagonal shaft
(9) Hexagonal shaft (single conveyor: one, dual conveyor: two)
(10) Drive unit

→ Remove the cable covers (items 3 and 5 in Fig. 4.4 - 7) from the panels (item 1 in Fig. 4.4 - 7) of the output conveyor.

→ Carefully place the panel (item 1 in Fig. 4.4 - 7) against the panel on the processing conveyor (item 2 in Fig. 4.4 - 7).

 CAUTION

Be careful not to cut through any of the light barrier or drive motor cables.

→ Fix each panel using 4 fillister head screws M6x16 and the associated washers (item 7 in Fig. 4.4 - 7).

→ Connect the power cable to the light barriers and drive motors.

→ Fix the cable covers in place (item 3 and 5 in Fig. 4.4 - 7).

→ Introduce the hexagonal shaft (item 9 in Fig. 4.4 - 7) into the drive unit (item 10 in Fig. 4.4 - 7).

→ Make sure that the hexagonal shaft guide (item 8 in Fig. 4.4 - 7) always points towards the conveyor side wall to which the drive unit (item 10 in Fig. 4.4 - 7) is fixed.

4.4.7 Fitting the extension kit on the PCB output side

4.4.7.1 Tools

– Allen keys, DIN 911, set
– Machine key

4.4.7.2 Assembly

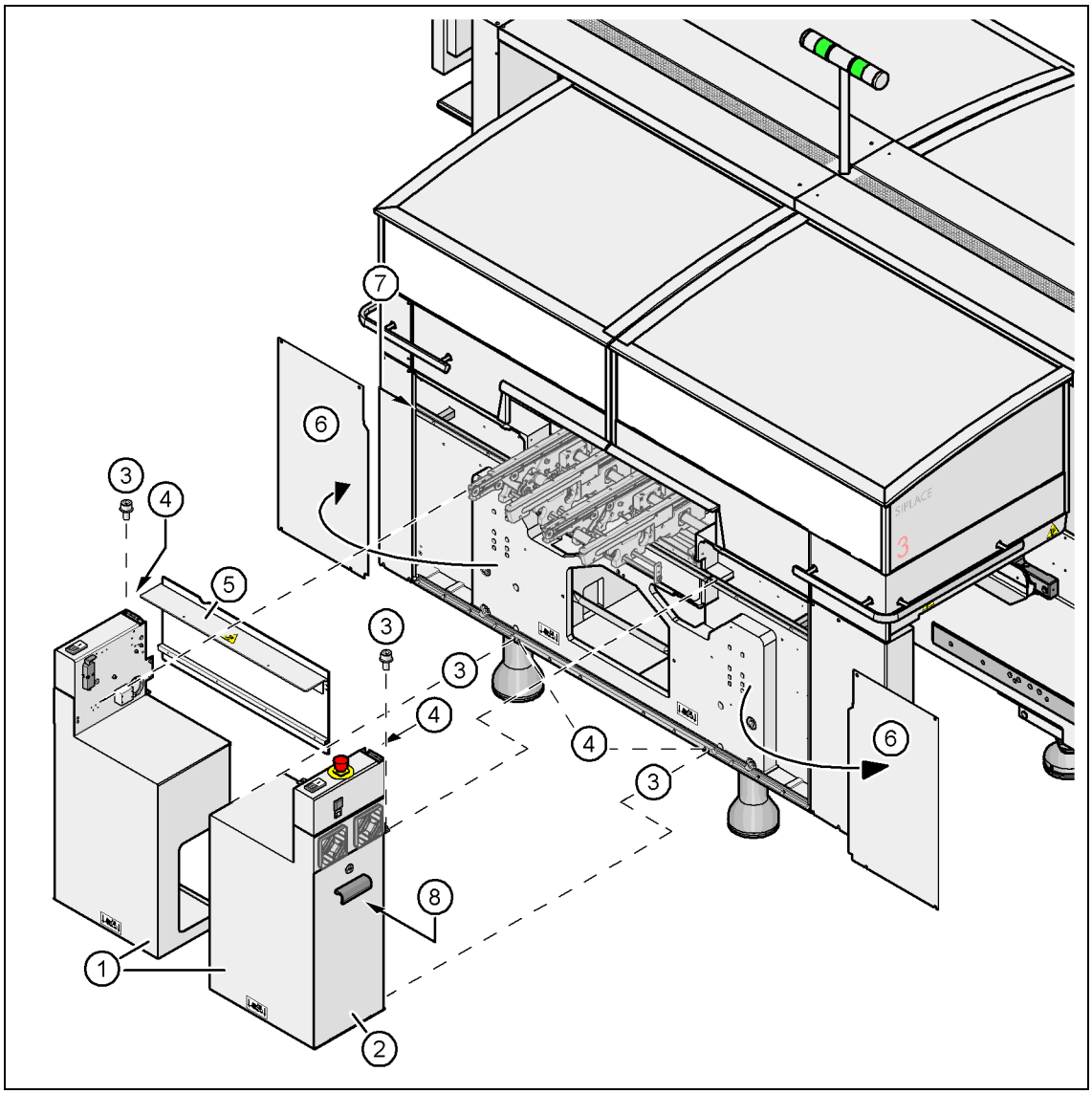

Fig. 4.4 - 8 Fitting the extension kit on the PCB output side

(1) Extension kit
(2) Doors
(3) Fillister head screw DIN 912, M6x16 and washer
(4) Ground connection
(5) Conveyor cover
(6) Side plate, dismantled
(7) Drawer unit rail
(8) Axis unit gantries 1 and 3 (HF) or axis unit gantry 3 (HF/3)

→ Remove both side plates (item 6 in Fig. 4.4 - 8).

 CAUTION

Do not unscrew the three bottom screws straight away. Simply loosen them so that the side plate does not fall off.

→ Detach the ground cable from the side plate.

→ Remove both doors (item 2 in Fig. 4.4 - 8) from the extension kit (item 1).

PLEASE NOTE:
To avoid damage, we recommend that a second person helps to assemble the extension kit.

→ Set down the axis unit (item 8 in Fig. 4.4 - 8) at the side of the machine in order to make enough space to fit the extension kit (item 1 in Fig. 4.4 - 8).

→ Make sure that the connecting cables to the axis unit are not too tight.

→ Lift one half of the extension kit (item 1 in Fig. 4.4 - 8) against the machine frame and position it so that the assembly bracket lies on the assembly bar (item 7 in Fig. 4.4 - 8).

 CAUTION

Make sure that this half of the extension kit does not collide with the hexagonal shaft of the PCB conveyor and thus bend the shaft.

→ Fix this half of the extension kit using 2 fillister head screws M6x16 and washers (item 3 in Fig. 4.4 - 8).

→ *Before* assembling the second half of the extension kit, fit the conveyor cover (item 5 in Fig. 4.4 - 8). The procedure is as follows:

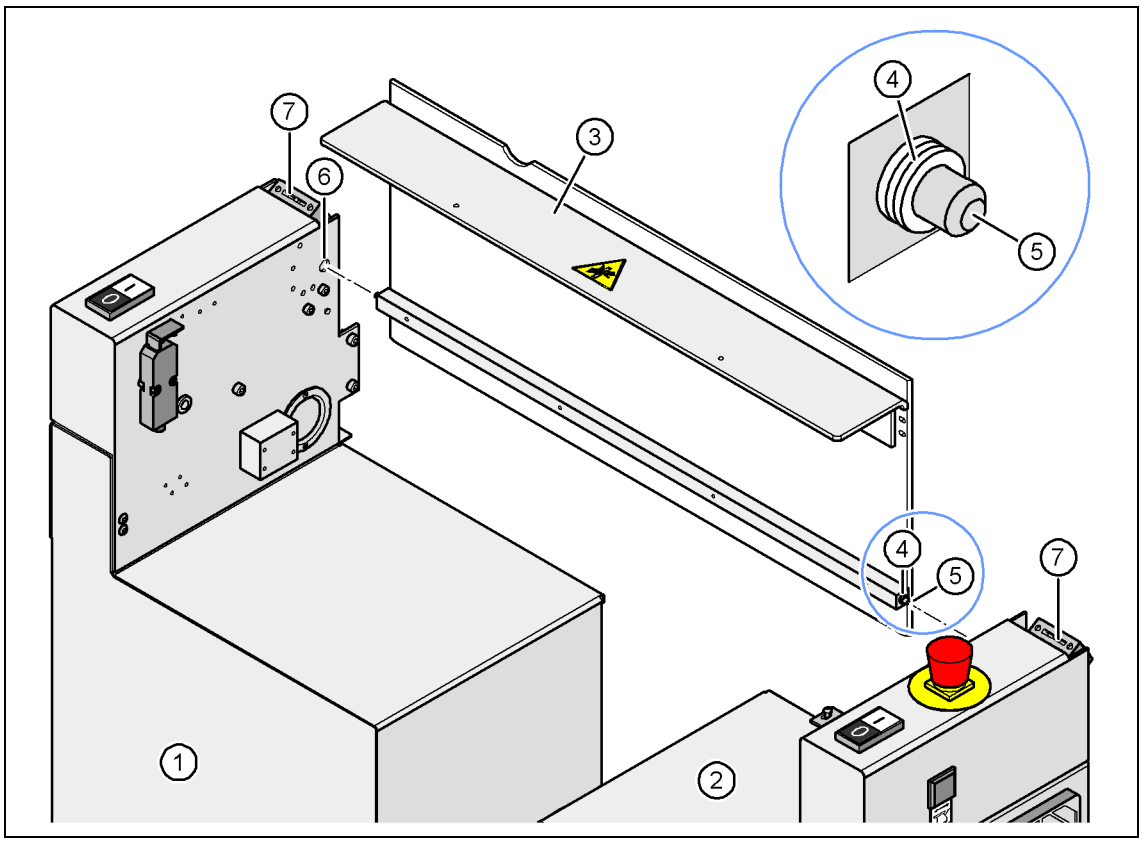

Fig. 4.4 - 9 Fitting the conveyor cover and the second half of the extension kit

(1) Half of the extension kit already fitted
(2) Second half of the extension kit to be fitted
(3) Conveyor cover
(4) Insert 3 white plastic washers on both sides
(5) Mandrel of the conveyor cover
(6) Hole
(7) Protective cover switch

→ Push 3 white plastic washers onto each mandrel (item 5 in Fig. 4.4 - 9).

→ Guide the mandrel (item 5 in Fig. 4.4 - 9) into the hole (item 6 in Fig. 4.4 - 9).

→ Lift the second half of the extension kit (item 2 in Fig. 4.4 - 9) against the machine frame.

CAUTION

Make sure that this half of the extension kit does not collide with the hexagonal shaft of the PCB conveyor and thus bend the shaft.

→ Introduce the mandrel (item 5 in Fig. 4.4 - 9) of the conveyor cover into the hole (item 6 in Fig. 4.4 - 9) in the second half of the extension kit.

→ Position the second half of the extension kit so that the assembly bracket lies on the assembly bar (item 7 in Fig. 4.4 - 8).

→ Fix the second half of the machine using 2 fillister head screws M6x16 and washers (item 3 in Fig. 4.4 - 8).

4.4.7.3 Fixing the hexagonal shaft guide

→ On the single conveyor, fix *one* guide for the hexagonal shaft (item 8 in Fig. 4.4 - 7) to the extension kit using two fillister head screws M6x16 and washers.

→ On the double conveyor, fix two guides for the hexagonal shaft (item 8 in Fig. 4.4 - 7) to the extension kit using two fillister head screws M6x16 and washers.

4.4.7.4 Connecting the power cables - Extension kit on the PCB output side

Left-hand side of the extension kit (viewed in the direction of travel)	**Connector/cable**	**To connector/cable**
Emergency stop button Start/Stop button	X63/03020687	X63/03002526
Protective cover switch, location 3	X53/03020409	X53/03002528
Button for the component trolley docking unit, location 3	X232/03021056	X232/03021053

Right-hand side of the extension kit (viewed in the direction of travel)	**Connector/cable**	**To connector/cable**
Start/Stop button Switch, PCB conveyor cover	X62/03020410	X62/03002525
Protective cover switch, location 2	X52/03006476	X52/03002527
Button for the component trolley docking unit, location 2	X222/03021056	X222/03021052

4.4.7.5 Fitting the grounding cable for the doors

→ Fix the two grounding cables for the doors (item 4 in Fig. 4.4 - 8) to the machine frame as follows:

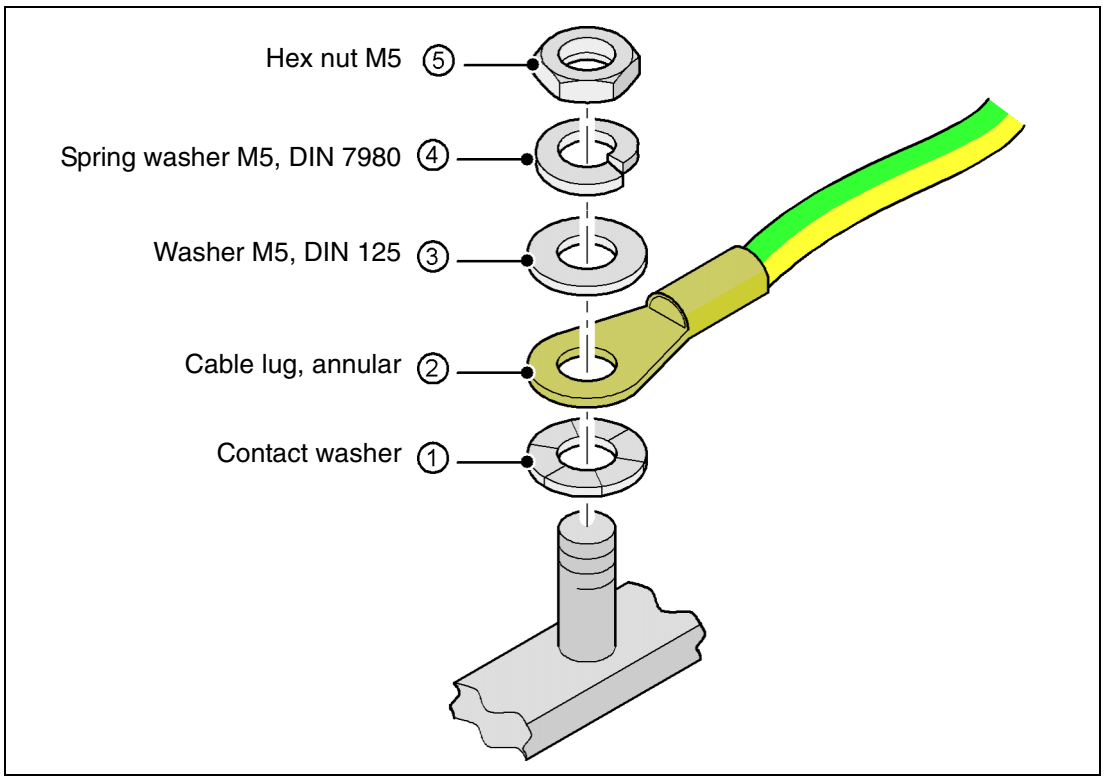

Fig. 4.4 - 10 Fitting the grounding cable

4.4.7.6 Checking and setting the protective cover switch

→ Check that the protective cover switch (item 7 in Fig. 4.4 - 9, page 190) is working correctly.

→ Adjust the protective cover switch if necessary (see Service Manual).

4.4.7.7 Installing the "bottom" hand guard

The machines from the HF series are supplied with just *one* "bottom" hand guard. If the machines are installed within a line, then no hand guard is required between immediately adjacent output and input conveyors.

WARNING

Always fit the "bottom" hand guard (item no. 03003432-01) on the input side of the *first* placement machine and on the output side of the *last* placement machine of a line using 4 hexagon socket head screws M4x12. This will prevent your personnel reaching into the machine without authorization.

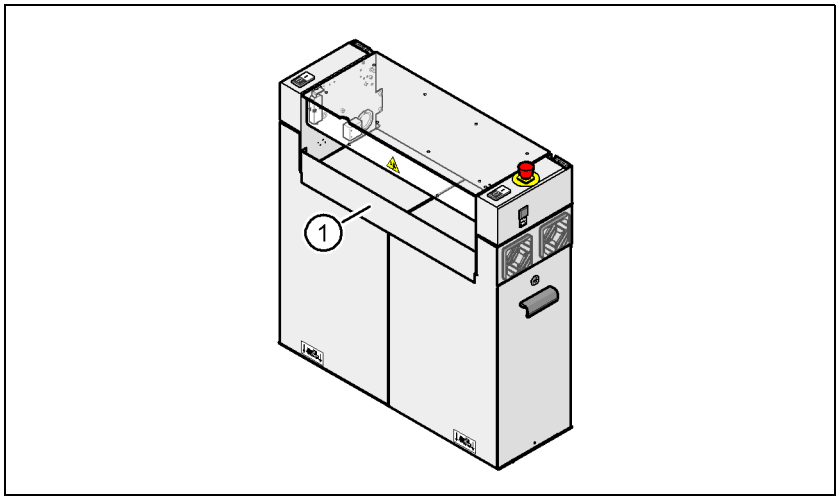

Fig. 4.4 - 11 Fitting the "bottom" hand guard on the PCB output side

(1) "Bottom" hand guard, item no. 03003432-01

4.4.8 Installing the axis unit on the HF and HF/3

4.4.8.1 HF axis unit (gantries 1 and 3) - Electrical connection points

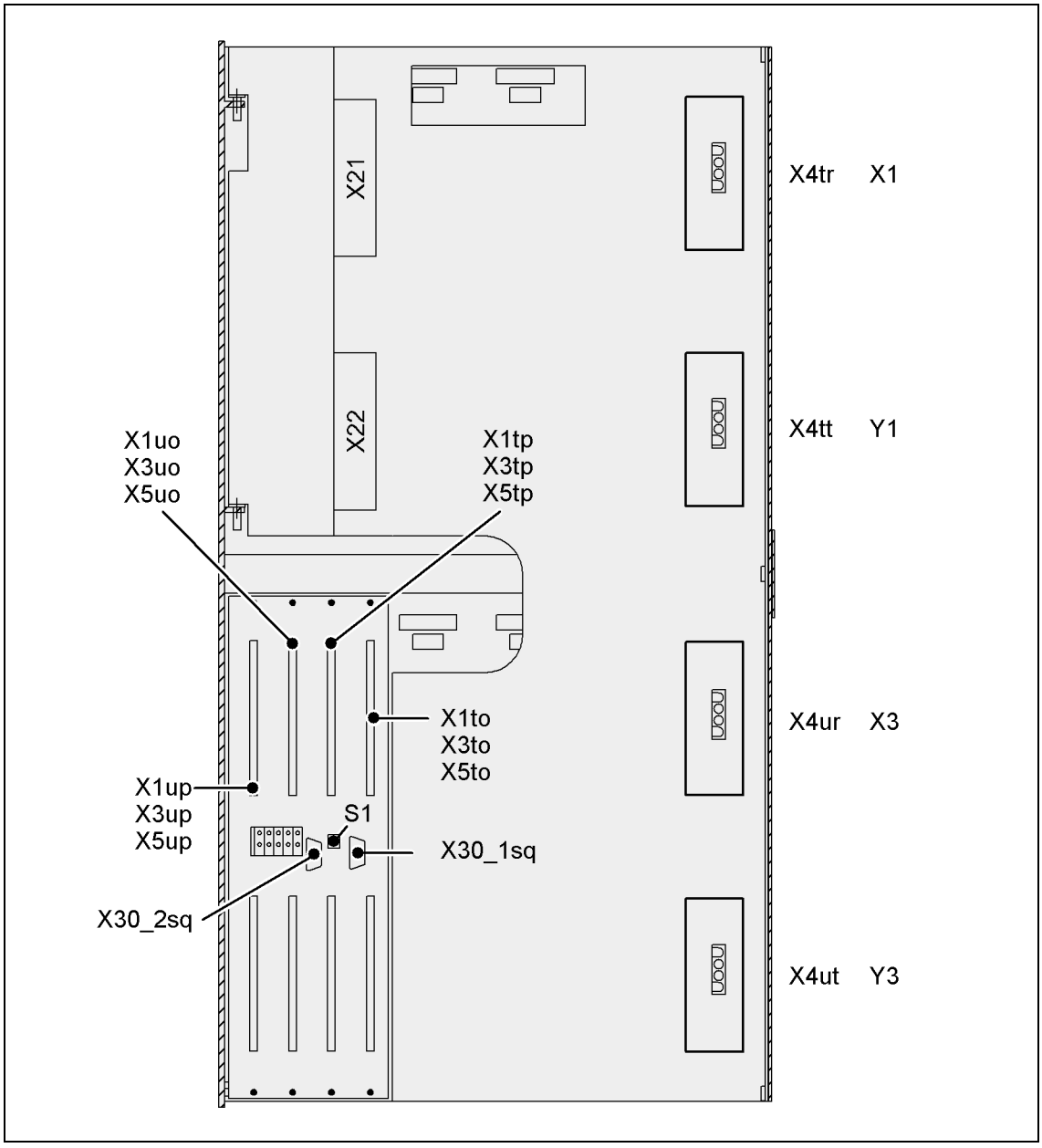

Fig. 4.4 - 12 HF axis unit (gantries 1 and 3) - Rear panel - Electrical connection points

4.4.8.2 HF axis unit (gantries 1 and 3) - Connecting the plugs

→ Connect the power cable as shown in the following diagram:

HF axis unit	Connecting cable		NOTE
Plug	Plug	Cable	
X21	X21	03009782 03009783 03009784 03009785 03009786 W1-W5	Secure connector with clips
X22	X22	03009802 03009803 03009804 03009805 03009807	Secure connector with clips
X4tr	X4tr	03009780	Snap connector into place
X4tt	X4tt	03009781	Snap connector into place
X4ur	X4ur	03009800	Snap connector into place
X4ut	X4ut	03009801	Snap connector into place
X1to X3to X5to	X1to X3to X5to	03009791 03009792 03009793	Insert as far as the stop
X1tp X3tp X5tp	X1tp X3tp X5tp	03009794 03009795 03009796	Insert as far as the stop
X1uo X3uo X5uo	X1uo X3uo X5uo	03009811 03009812 03009813	Insert as far as the stop
X1up X3up X5up	X1up X3up X5up	03009814 03009815 03009816	Insert as far as the stop
X30_1sq X30_2sq	X30_1sq X30_2sq	03010054 03010054	Screw tightly

→ Check the switch settings for S1

1: OFF

2: ON

→ Continue from section 4.4.8.5 "Fitting the axis unit", page 198.

4.4.8.3 HF/3 axis unit (gantry 3) - Electrical connection points

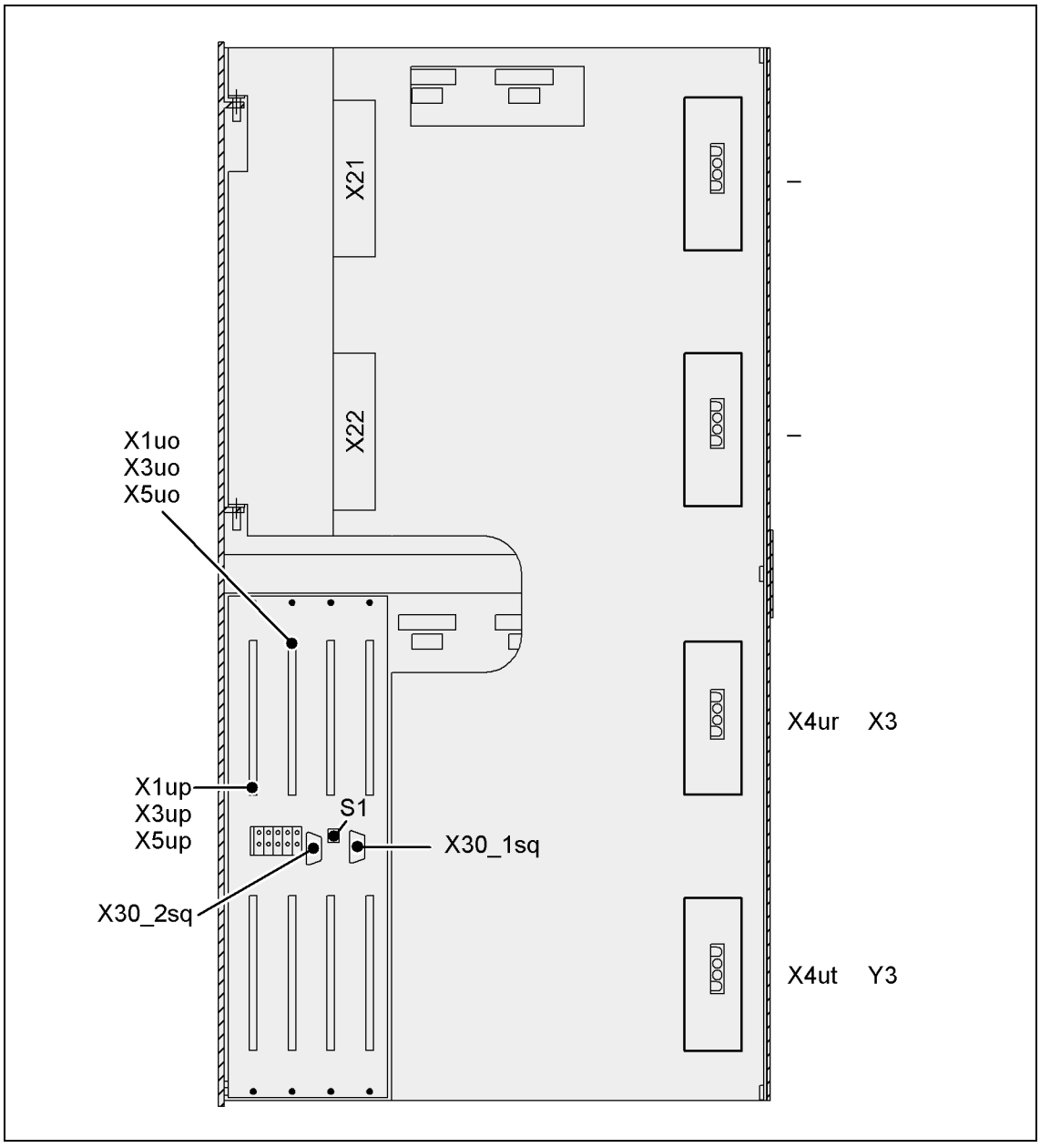

Fig. 4.4 - 13 HF/3 axis unit (gantry 3), back panel - Electrical connection points

4.4.8.4 HF/3 axis unit (gantry 3) - Connecting the plugs

→ Connect the power cable as shown in the following diagram:

HF/3 axis unit (gantry 3) Plug	Connecting cable		NOTE
	Plug	Cable	
X21	X21	03009782 03009783 03009784 03009785 03009786 W1-W5	Secure connector with clips
X22	X22	03009802 03009803 03009804 03009805 03009807	Secure connector with clips
X4ur	X4ur	03009800	Snap connector into place
X4ut	X4ut	03009801	Snap connector into place
X1uo X3uo X5uo	X1uo X3uo X5uo	03009811 03009812 03009813	Insert as far as the stop
X1up X3up X5up	X1up X3up X5up	03009814 03009815 03009816	Insert as far as the stop
X30_1sq X30_2sq	X30_1sq X30_2sq	03010054 03010054	Screw tightly

→ Check the switch settings for S1

1: ON

2: ON

→ Continue from section 4.4.8.5 "Fitting the axis unit", page 198.

4.4.8.5 Fitting the axis unit

→ Carefully lift the axis unit onto the rail in the extension kit.

→ Make sure that you do not squash any cables.

→ Push the axis unit into the extension kit as far as the stop.

→ Secure the axis unit with the fillister head screw.

→ Insert the cover.

→ Fix the grounding cable to the doors (item 2 in Fig. 4.4 - 8, page 188), as shown in Fig. 4.4 - 10 on page 192.

→ Lock the doors.

4.4.8.6 Fitting the side plates

→ Fix the grounding cable to each side plate (item 6 in Fig. 4.4 - 8, page 188), as shown in Fig. 4.4 - 10 page 192.

→ Fix the side plate to the machine frame with 6 fillister head screws.

PLEASE NOTE

If you have dismantled the output conveyor, continue from section 4.4.9 " Fitting the input conveyor" on page 199.

Once the input conveyor is fitted, then continue the assembly work from section 4.4.13 "Fitting the main fault indicator" on page 214.

4.4.9 Fitting the input conveyor

4.4.9.1 Tools

– Allen keys, DIN 911, set
– Phillips screwdriver, size 1

4.4.9.2 Assembly

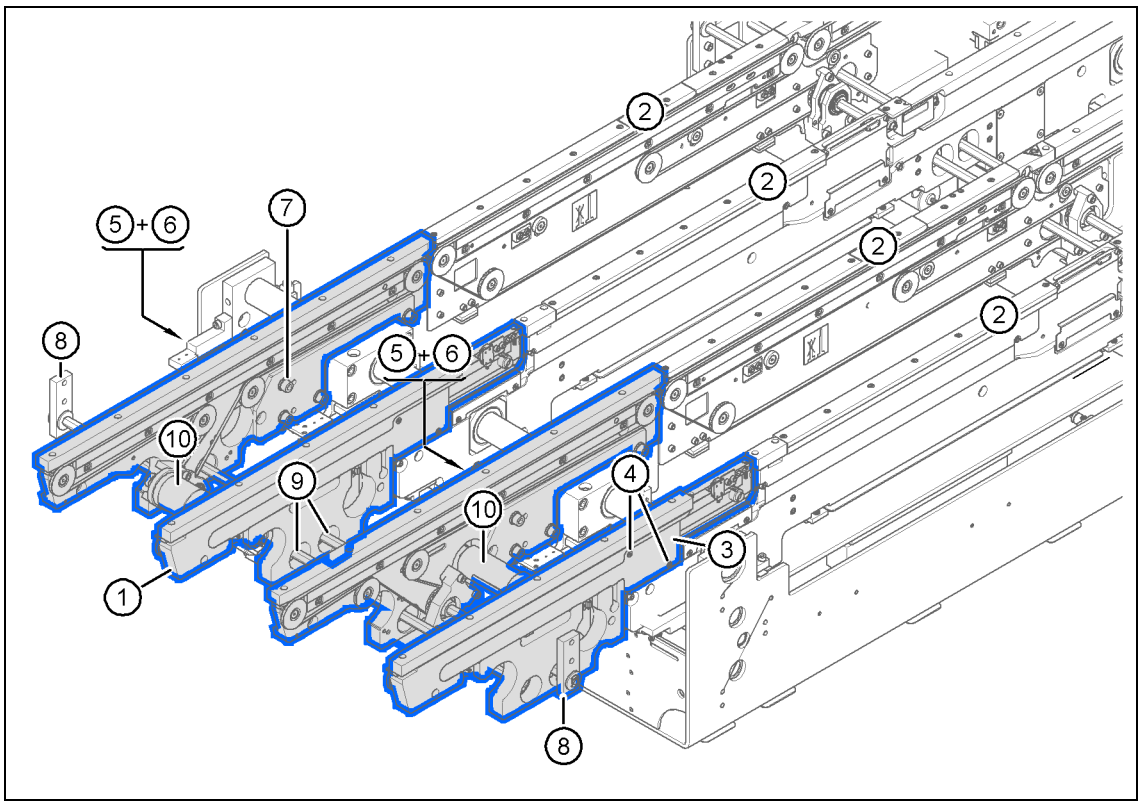

Fig. 4.4 - 14 Input conveyor - dual conveyor

(1) Panel, input conveyor
(2) Panel, processing conveyor 1
(3) Cable cover 20 x 200
(4) Countersunk screw, ISO 7046, M3x6, 2x per cable cover
(5) Cable cover 20 x 310
(6) Fillister head screw DIN 912, M3x5, 1x per cable cover
(7) Fillister head screw DIN 912, M6x16, and washer, 4x per panel
(8) Guide for hexagonal shaft
(9) Hexagonal shaft (single conveyor: one, dual conveyor: two)
(10) Drive unit

→ Remove the cable covers (items 3 and 5 in Fig. 4.4 - 14) from the input conveyor (item 1 in Fig. 4.4 - 14).

→ Carefully place the panel (item 1 in Fig. 4.4 - 14) against the panel on the processing conveyor (item 2 in Fig. 4.4 - 14).

CAUTION

Be careful not to cut through any of the light barrier or drive motor cables.

→ Fix each panel using 4 fillister head screws M6x16 and the associated washers (item 7 in Fig. 4.4 - 14).

→ Connect the power cable to the light barriers and drive motors.

→ Fix the cable covers in place (item 3 and 5 in Fig. 4.4 - 14).

→ Introduce the hexagonal shaft (item 9 in Fig. 4.4 - 14) into the drive unit (item 10 in Fig. 4.4 - 14).

→ Make sure that the hexagonal shaft guide (item 8 in Fig. 4.4 - 14) always points towards the conveyor side wall to which the drive unit (item 10 in Fig. 4.4 - 14) is fixed.

4.4.10 Fitting the extension kit on the PCB input side

4.4.10.1 Tools

– Allen keys, DIN 911, set
– Machine key

4.4.10.2 Assembly

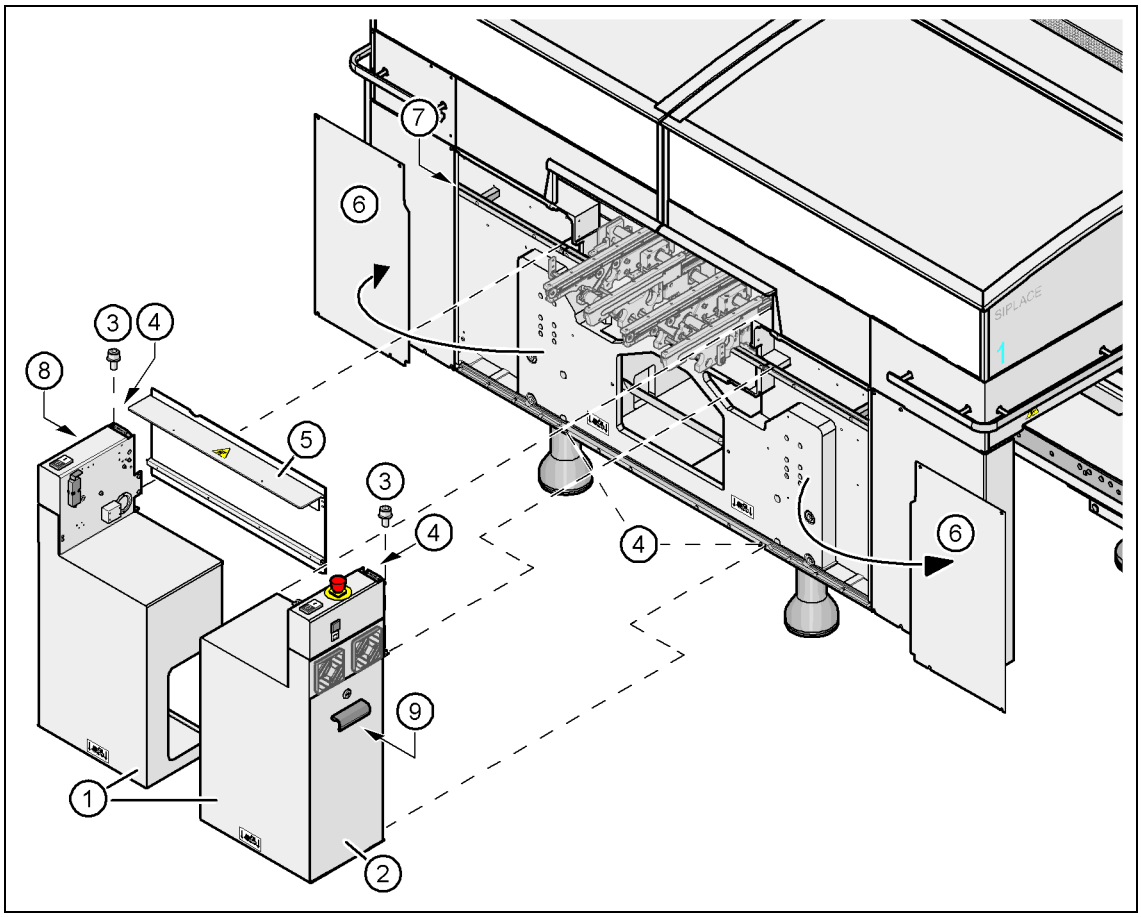

Fig. 4.4 - 15 Fitting the extension kit on the PCB input side

(1) Extension kit, dismantled
(2) Doors
(3) Fillister head screw DIN 912, M6x16 and washer
(4) Ground connection
(5) Conveyor cover
(6) Side plate, dismantled
(7) Drawer unit rail
(8) Computer unit
(9) Axis unit (HF/3)

→ Remove both side plates (item 6 in Fig. 4.4 - 15).

CAUTION

Do not unscrew the three bottom screws straight away. Simply loosen them so that the side plate does not fall off.

→ Detach the ground cable from the side plate.

→ Remove both doors (item 2 in Fig. 4.4 - 15) from the extension kit (item 1).

PLEASE NOTE:

To avoid damage, we recommend that a second person helps to assemble the extension kit.

→ Set down the computer unit (item 8 in Fig. 4.4 - 15) and the axis unit (item 9 in Fig 4.4 - 15) at the side of the machine in order to make enough space to fit the extension kit (item 1 in Fig. 4.4 - 15).

→ Make sure that the connecting cables to the computer and axis units are not too tight.

→ Lift one half of the extension kit (item 1 in Fig. 4.4 - 15) against the machine frame and position it so that the assembly bracket lies on the assembly bar (item 7 in Fig. 4.4 - 15).

CAUTION

Make sure that the extension kit does not collide with the hexagonal shaft of the PCB conveyor and thus become bent.

→ Fix this half of the extension kit using 2 fillister head screws M6x16 and washers (item 3 in Fig. 4.4 - 15).

→ *Before* assembling the second half of the extension kit, fit the conveyor cover (item 5 in Fig. 4.4 - 15). The procedure is as follows:

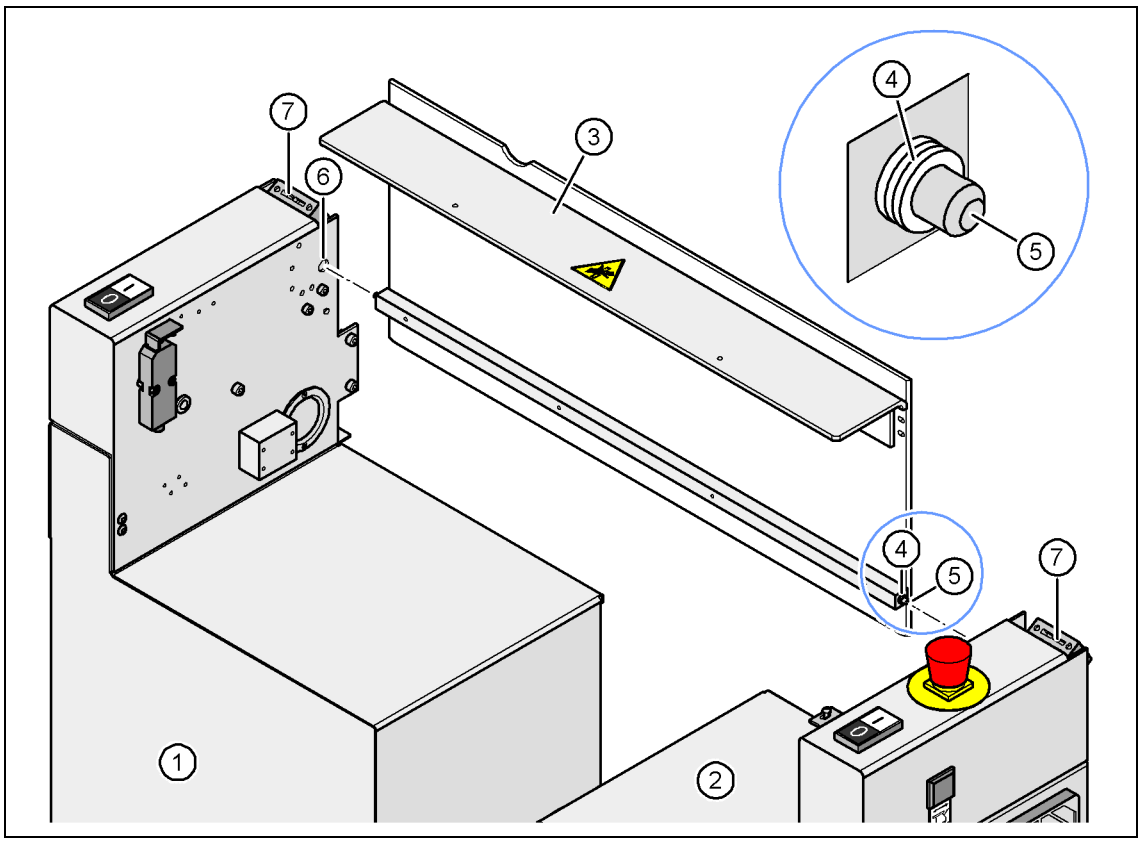

Fig. 4.4 - 16 Fitting the conveyor cover and the second half of the extension kit

(1) Half of the extension kit already fitted
(2) Second half of the extension kit to be fitted
(3) Conveyor cover
(4) Insert 3 white plastic washers on both sides
(5) Mandrel of the conveyor cover
(6) Hole
(7) Protective cover switch

→ Push 3 white plastic washers onto each mandrel (item 5 in Fig. 4.4 - 16).
→ Guide the mandrel (item 5 in Fig. 4.4 - 16) into the hole (item 6 in Fig. 4.4 - 16).
→ Lift the second half of the extension kit (item 2 in Fig. 4.4 - 16) against the machine frame.

CAUTION
Make sure that this half of the extension kit does not collide with the hexagonal shaft of the PCB conveyor and thus bend the shaft.

→ Introduce the mandrel (item 5 in Fig. 4.4 - 16) of the conveyor cover into the hole (item 6 in Fig. 4.4 - 16) in the second half of the extension kit.

→ Position the second half of the extension kit so that the assembly bracket lies on the assembly bar (item 7 in Fig. 4.4 - 15).

→ Fix the second half of the machine using 2 fillister head screws M6x16 and washers (item 3 in Fig. 4.4 - 15).

4.4.10.3 Fixing the hexagonal shaft guide

→ On the single conveyor, fix *one* guide for the hexagonal shaft (item 8 in Fig. 4.4 - 14) to the extension kit using two fillister head screws M6x16 and washers.

→ On the double conveyor, fix two guides for the hexagonal shaft (item 8 in Fig. 4.4 - 14) to the extension kit using two fillister head screws M6x16 and washers.

4.4.10.4 Connecting the power cables - Extension kit on the PCB input side

Left-hand side of the extension kit (viewed in the direction of travel)	**Connector/cable**	**To connector/cable**
Start/Stop button Switch, PCB conveyor cover	X61/03020410	X61/03002537
Protective cover switch, location 4	X54/03020409	X54/03002540
Button for the component trolley docking unit, location 4	X242/03021056	X242/03021054

Right-hand side of the extension kit (viewed in the direction of travel)	**Connector/cable**	**To connector/cable**
Emergency stop button Start/Stop button	X64/03020687	X64/03002538
Protective cover switch, location 1	X51/03020409	X51/03002539
Button for the component trolley docking unit, location 1	X212/03021056	X212/03021051

4.4.10.5 Fitting the grounding cable for the doors

→ Fix the two grounding cables for the doors (item 4 in Fig. 4.4 - 15) to the machine frame as follows:

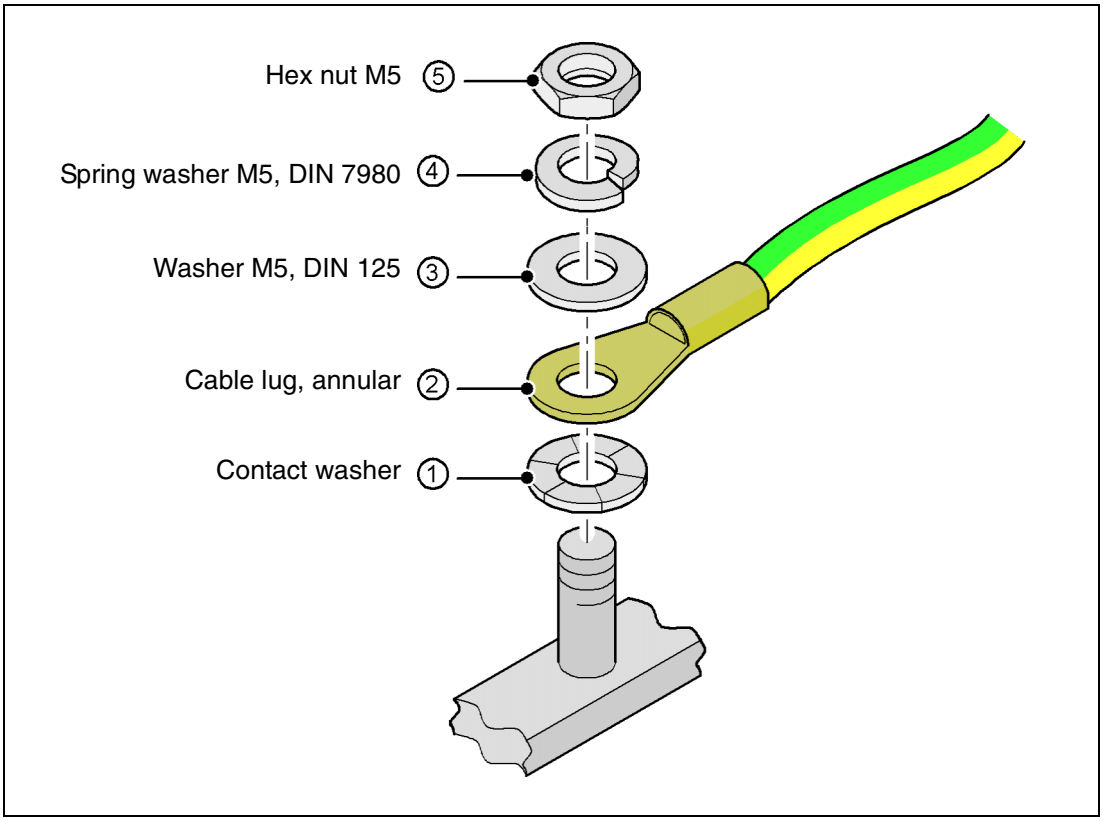

Fig. 4.4 - 17 Fitting the grounding cable

4.4.10.6 Checking and setting the protective cover switch

→ Check that the protective cover switch (item 7 in Fig. 4.4 - 16, page 203) is working correctly.

→ Adjust the protective cover switch if necessary (see Service Manual).

4.4.10.7 Installing the "bottom" hand guard

The machines from the HF series are supplied with just *one* "bottom" hand guard. If the machines are installed within a line, then no hand guard is required between immediately adjacent output and input conveyors.

WARNING

Always fit the "bottom" hand guard (item no. 03003432-01) on the input side of the *first* placement machine and on the output side of the *last* placement machine of a line using 4 hexagon socket head screws M4x12. This will prevent your personnel reaching into the machine without authorization.

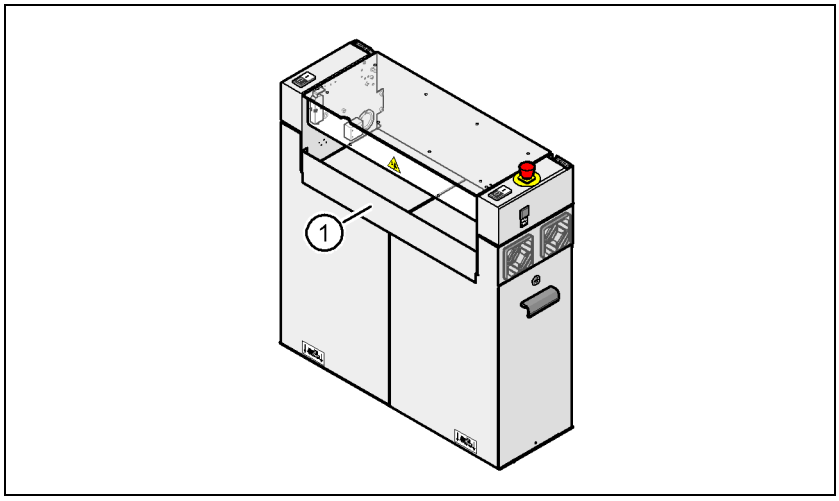

Fig. 4.4 - 18 Fitting the "bottom" hand guard on the PCB input side

(1) "Bottom" hand guard, item no. 03003432-01

4.4.11 Installing the computer unit on HF and HF/3

4.4.11.1 Computer unit - Electrical connection points

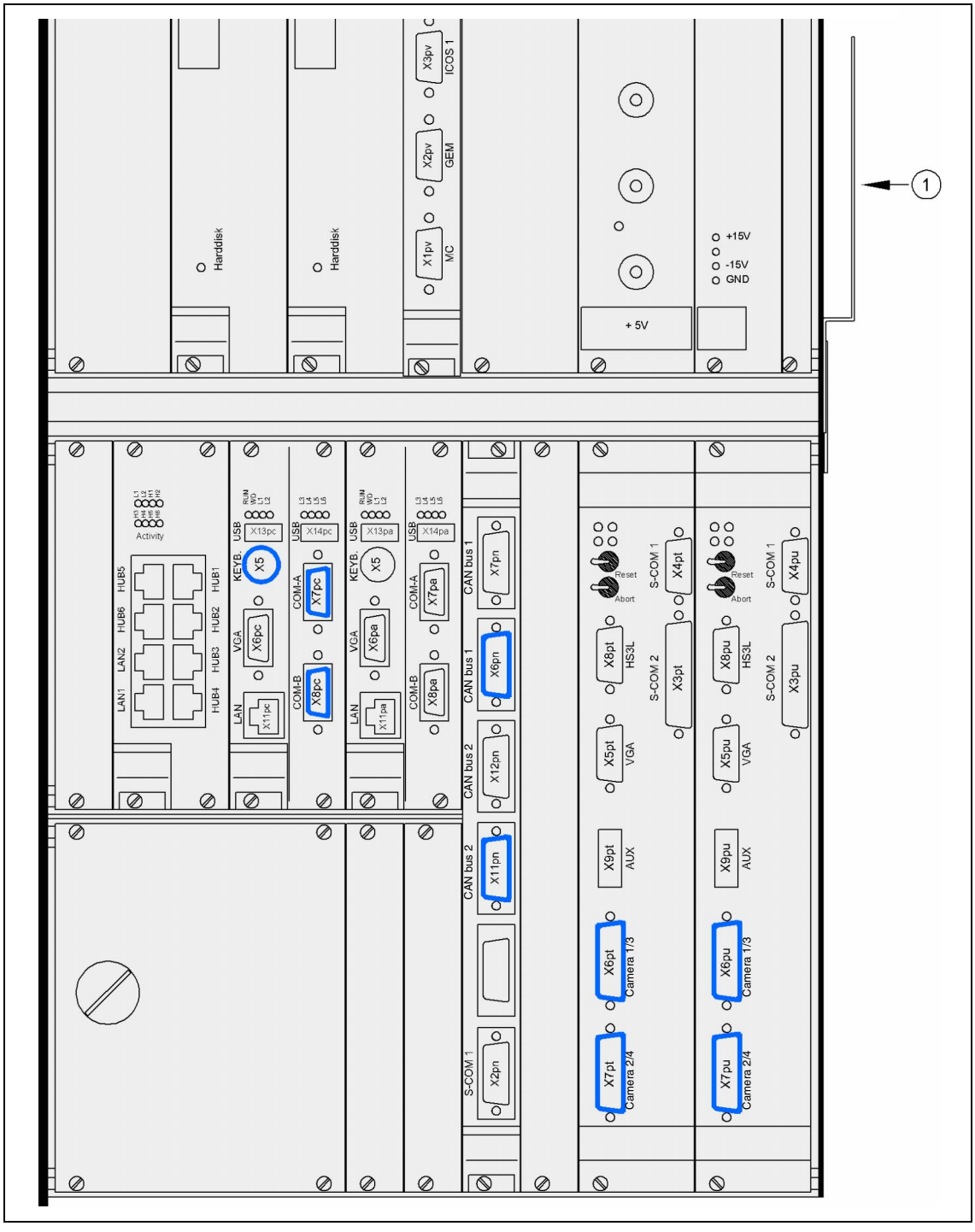

Fig. 4.4 - 19 Computer unit, front panel - Connecting the plugs

(1) Cable guide plate

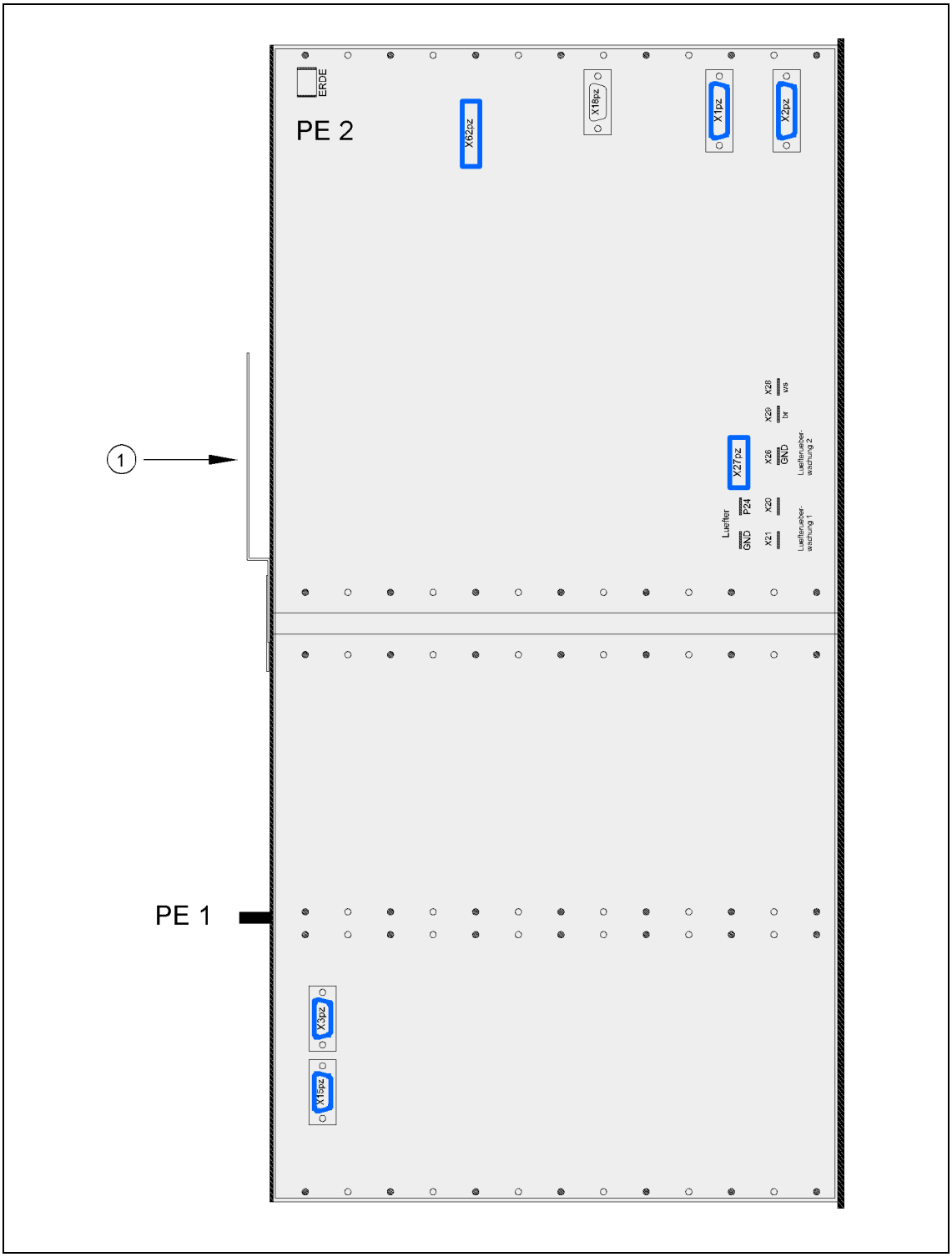

Fig. 4.4 - 20 Computer unit, back panel - Connecting the plugs

(1) Cable guide plate

4.4.11.2 HF computer unit - Connecting the plugs

→ Connect the power cable as shown in the following diagram:

Computer unit, front panel (Fig. 4.4 - 19) Plug	Connecting cable Plug	Cable	NOTE
X5pc	X5pc	03002958 + 03002559	Insert as far as the stop
X7pc	X7pc	03002967	Secure with screws
X8pc	X8pc	03002970	Secure with screws
X6pn	X6pn	03010051	Secure with screws
X11pn	X11pn	03010059	Secure with screws
X6pt	X6pt	03002507 W1+W2	Secure with screws
X7pt	X7pt	03003438 W1+W2	Secure with screws
X6pu	X6pu	03002508 W1+W2	Secure with screws
X7pu	X7pu	03003435 W1+W2	Secure with screws

Computer unit, back panel (Fig. 4.4 - 20) Plug	Connecting cable Plug	Cable	NOTE
X15pz	X15pz	03003434	Fix with screws
X3pz	X3pz	03004063	Fix with screws
PE1	Cable ring	Grounding cable	Fix as shown in Fig. 4.4 - 17, page 205
X27pz	X27pz	03003437 W1-W2	Insert as far as the stop
X2pz	X2pz	03002966 W1-W5	Fix with screws
X1pz	X1pz	03002969 W1-W5	Fix with screws
X62pz	X62pz	03002488	Snap into place
PE2	Cable lug	Grounding cable	Insert as far as the stop
P24 / GND	X1	Fan in extension kit	Insert as far as the stop

4.4.11.3 HF/3 computer unit - Connecting the plugs

→ Connect the power cable as shown in the following diagram:

Computer unit, front panel (Fig. 4.4 - 19)	**Connecting cable**		
Plug	**Plug**	**Cable**	**NOTE**
X5pc	X5pc	03002958 + 03002559	Insert as far as the stop
X7pc	X7pc	03002967	Secure with screws
X8pc	X8pc	03002970	Secure with screws
X6pn	X6pn	03010051	Secure with screws
X11pn	X11pn	03010059	Secure with screws
X6pt	X6pt	03010607 W1+W2	Secure with screws
X7pt	X7pt	03010608 W1+W2	Secure with screws
X6pu	X6pu	03002508 W1+W2	Secure with screws
X7pu	X7pu	03003435 W1+W2	Secure with screws

Computer unit, back panel (Fig. 4.4 - 20)	**Connecting cable**		
Plug	**Plug**	**Cable**	**NOTE**
X15pz	X15pz	03003434	Fix with screws
X3pz	X3pz	03004063	Fix with screws
PE1	Cable ring	Grounding cable	Fix as shown in Fig. 4.4 - 17, page 205
X27pz	X27pz	03003437 W1-W2	Insert as far as the stop
X2pz	X2pz	03002966 W1-W5	Fix with screws
X1pz	X1pz	03002969 W1-W5	Fix with screws
X62pz	X62pz	03002488	Snap into place
PE2	Cable lug	Grounding cable	Insert as far as the stop
P24 / GND	X1	Fan in extension kit	Insert as far as the stop

4.4.11.4 Fitting the computer unit

- → Plug in the plug-in connectors on the back panel of the computer unit (see section 4.4.11.2, 4.4.11.3).
- → Carefully lift the computer unit onto the rail in the extension kit.
- → Make sure that you do not squash any cables.
- → Check that the cables for the front panel are in the lateral cable routing plate (item 1 in Fig. 4.4 - 19, page 207).
- → Fix the cables to the front panel with cable ties.
- → Push the computer unit into the extension kit as far as the stop.
- → Connect the fan cable to the computer unit cable.
- → Plug in the plug-in connectors on the front panel of the computer unit (see section 4.4.11.2, 4.4.11.3).
- → Secure the computer unit with the fillister head screw.
- → Fix the grounding cable to the doors (item 2 in Fig. 4.4 - 15, page 201), as shown in Fig. 4.4 - 17 on page 205.
- → Lock the doors.

PLEASE NOTE

On HF placement machines, continue from section 4.4.11.5 "Fitting the side plates".

On HF/3 placement machines, continue from section 4.4.12 "Installing the axis unit on the HF/3 (gantry 1 and gantry 4)" on page 212.

4.4.11.5 Fitting the side plates

- → Fix the grounding cable to each side plate (item 5 in Fig. 4.4 - 15), as shown in Fig. 4.4 - 17 page 205.
- → Fix the side plate to the machine frame with 6 fillister head screws.
- → Continue from section 4.4.13 "Fitting the main fault indicator", page 214.

4.4.12 Installing the axis unit on the HF/3 (gantry 1 and gantry 4)

4.4.12.1 HF/3 axis unit (gantry 1 and gantry 4) - Electrical connection points

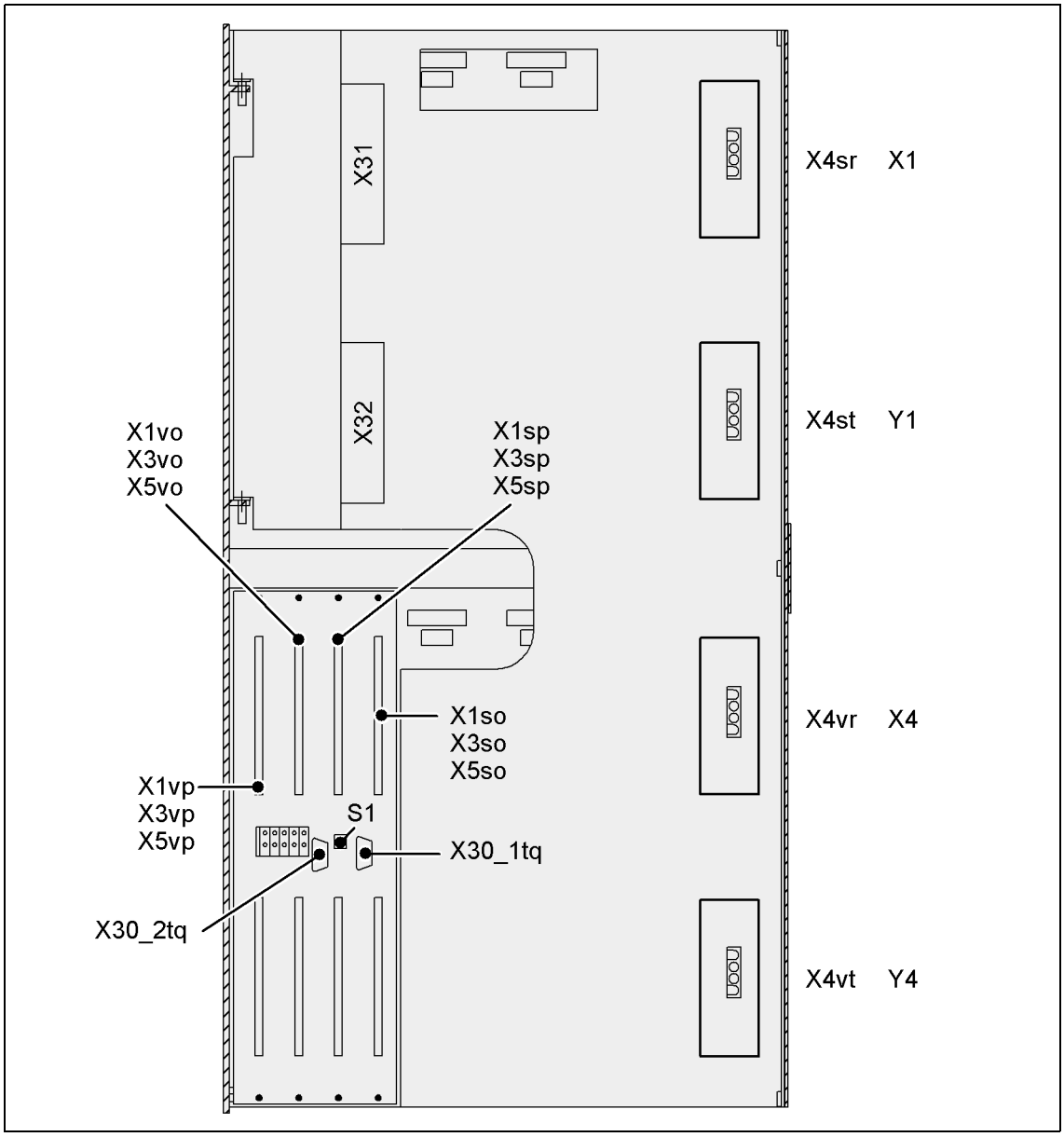

Fig. 4.4 - 21 HF/3 axis unit (gantry 1 and gantry 4), rear panel - Connecting the plugs

4.4.12.2 HF/3 axis unit (gantry 1 and gantry 4) - Connecting the plugs

→ Connect the power cable as shown in the following diagram:

Axis unit Gantry 1 and gantry 4 Plug	Connecting cable		NOTE
	Plug	Cable	
X31	X31	03009762 03009763 03009764 03009765 03009766 W1-W5	Secure connector with clips
X32	X32	03009822 03009823 03009824 03009825 03009827	Secure connector with clips
X4sr	X4sr	03009760	Snap connector into place
X4st	X4st	03009761	Snap connector into place
X4vr	X4vr	03009820	Snap connector into place
X4vt	X4vt	03009821	Snap connector into place
X1so X3so X5so	X1so X3so X5so	03009771 03009772 03009773	Insert as far as the stop
X1sp X3sp X5sp	X1sp X3sp X5sp	03009774 03009775 03009776	Insert as far as the stop
X1vo X3vo X5vo	X1vo X3vo X5vo	03009831 03009832 03009833	Insert as far as the stop
X1vp X3vp X5vp	X1vp X3vp X5vp	03009834 03009835 03009836	Insert as far as the stop
X30_1tq X30_2tq	X30_1tq X30_2tq	03010051 03010051	Screw tightly

→ Check the switch settings for S1

1: OFF

2: OFF

4.4.12.3 Fitting the HF/3 axis unit (gantry 1 and gantry 4)

- → Carefully lift the axis unit onto the rail in the extension kit.
- → Make sure that you do not squash any cables.
- → Push the axis unit into the extension kit as far as the stop.
- → Connect the fan cable to the axis unit cable.
- → Secure the axis unit with the fillister head screw.
- → Insert the cover.
- → Fix the grounding cable to the doors (item 2 in Fig. 4.4 - 15, page 201), as shown in Fig. 4.4 - 17 on page 205.
- → Lock the doors.

4.4.12.4 Fitting the side plates

- → Fix the grounding cable to each side plate (item 6 in Fig. 4.4 - 15, page 201), as shown in Fig. 4.4 - 17 page 205.
- → Fix the side plate to the machine frame with 6 fillister head screws.

4.4.13 Fitting the main fault indicator

- → Open the protective cover on location 2.
- → Move the gantry out of the vicinity of location 2.
- → Use the size 2.5 Allen key to loosen the four hexagon socket head screws of the long trailing cable plate and lift out the plate.
- → Insert the main fault indicator lamp (item 1, Fig. 4.4 - 22) into the hole (item 3, Fig. 4.4 - 22) until the tube of the lamp projects sufficiently into the terminal beneath.
- → Align the main fault indicator (item 1, fig. 4.4 - 22) so that the mark (item 2, fig. 4.4 - 22) points to the right looking in the PCB direction of travel.
- → Fix the main fault indicator in this position by tightening the two hexagon socket head screws at the clamping point using the size 5 Allen key.
- → Connect connector X55 on the main fault indicator (03004315-xx) to connector X55 on the cable 03002529-xx.
- → Fix the trailing cable plate using the four hexagon socket head screws.

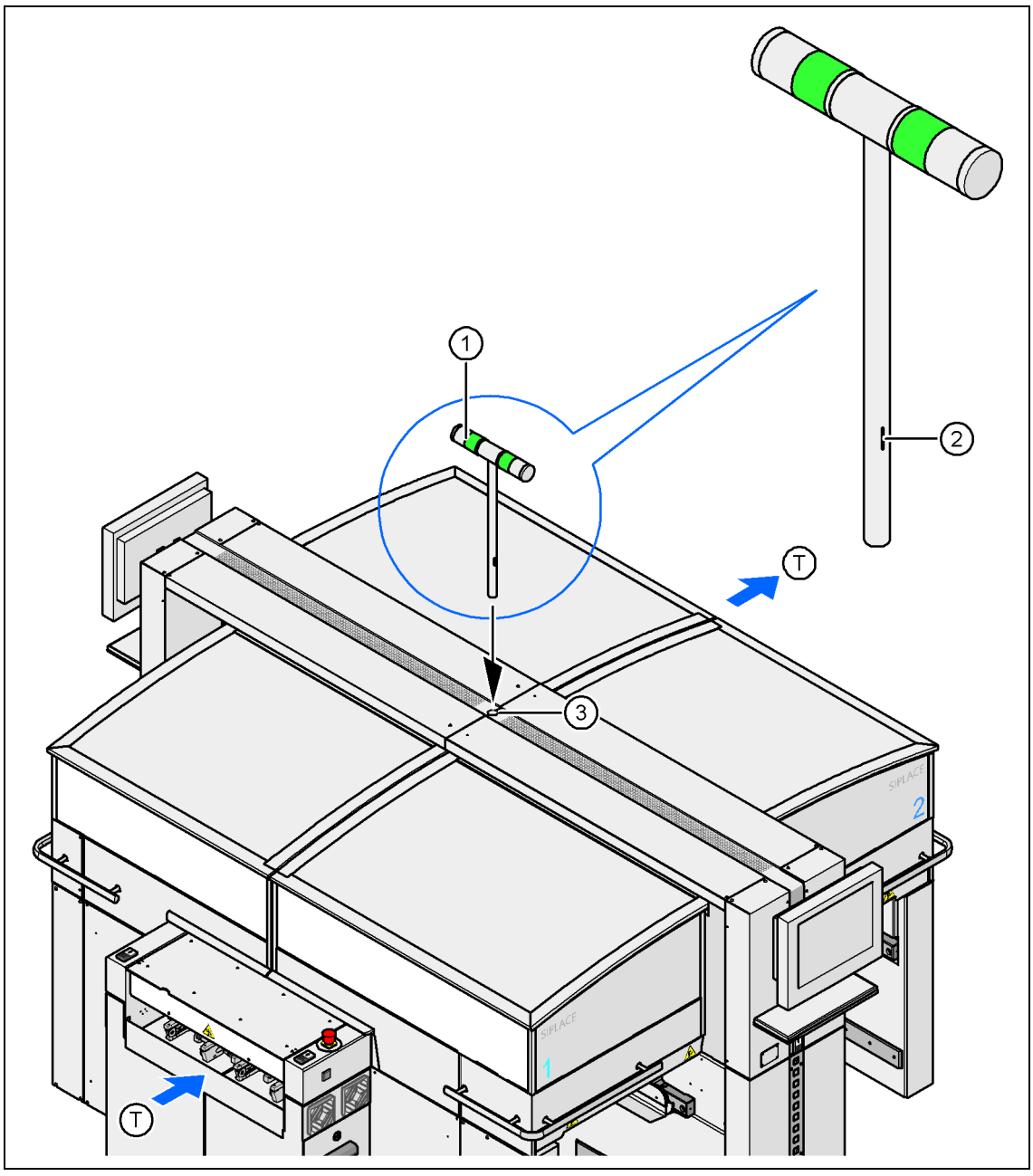

Fig. 4.4 - 22 Fitting the main fault indicator

(1) Main fault indicator

(2) Mark

(3) Hole for the main fault indicator

(T) PCB direction of travel